

What Is Claimed Is:

1. A power supply device of a tire-pressure sensor comprising:  
a generator which is corotational with a tire, the generator generating an electric voltage by electromagnetic induction.
2. The device according to claim 1, wherein the generator includes a magnetic circuit, and the induced voltage is generated by a geometric change in the magnetic circuit.
3. The device according to claim 2, wherein the geometric change in the magnetic circuit includes a change in air gaps.
4. The device according to claim 2, wherein the magnetic circuit includes at least one permanent magnet.
5. The device according to claim 2, wherein the magnetic circuit includes a stationary magnetically-conductive core and a movable magnetically-conductive core, and the induced voltage is generated by a relative change in a position of the movable core with respect to the stationary core.
6. The device according to claim 5, further comprising a guide, and wherein the movable core moves along the guide.
7. The device according to claim 6, further comprising a restoring spring attached to the movable core for returning the movable core to a starting position after a relative change in position has occurred.
8. The device according to claim 5, further comprising a plate spring attached to the movable core for allowing a one-dimensional change in position of the movable core.
9. The device according to claim 5, further comprising a torsion bar attached to

the movable core for allowing a two-dimensional change in position of the movable core.

10. The device according to claim 5, further comprising at least one stop for limiting a magnitude of the relative change in position.

11. The device according to claim 5, further comprising a coil, in which the induced voltage is generated, attached to the stationary core.

12. The device according to claim 5, wherein the relative change in position is induced by at least one of an acceleration and a change in acceleration of the tire.

13. The device according to claim 1, further comprising an energy storage device, and wherein an electric current is generated by the electric voltage and is used to charge up the energy storage device.